

IX. *The Botanical History of the Canella alba, by Olof Swartz, M.D.*

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THIS tree, the bark of which has frequently been mistaken for the real Cortex Winteranus, has, like many other medicinal plants, been hitherto but imperfectly known to botanists.

Clusius is the first who has recorded the introduction of this bark from the West-Indies, which seems to have been at the beginning of the seventeenth century; as he says in his *Exot. lib. iv. cap. 4, de Canella alba quorundam*, “Ante paucos annos (before 1605) cœpit exoticus cortex inferri, cui nomen Canellæ albæ indiderunt;” and it consequently became first known about 20 years after Winter’s return from the Straits of Magellan; whose bark we also find to have been first mentioned and described by *Clusius, in notis in Garciam, p. 30*, under the name of Cortex Winteranus, as a compliment to the discoverer.

CASPAR BAUHIN mentions our bark several times in his *Pinax*; and calls it, p. 409,

Pseudo-cassia cinnamomea Americana.

Canella Peruana.

Canella tubis minoribus alba; and, p. 461,

Cassia lignea Jamaicensis laureolæ foliis subcinereis, cortice piperis modo acri*.

PARKINSON gave, a short time after (*Theatr.* p. 1581), a prolix detail concerning the difference between these two kinds of bark, and tells us it was a common thing in his time to mistake one for the other.

But JOHN BAUHIN seems to have first confounded the names, by styling the Cortex Winteranus, Canella alba. *Hist.* t. i. l. 4, p. 460.

PLUKENET, who probably knew something more of the tree than its bark only, found great difficulty in discriminating the synonyma; as he says, in his *Almag. Mant.* p. 40, "Varie inter se plurimum diversæ plantæ per illarum ignorationem plane confunduntur." But he does not himself correct this fault, as he gives a very false representation of a branch from the tree, that yields the true Winter's Bark (*Phytogr.* tab. 81, f. 1), which he certainly never saw.

He has however enumerated the former in his *Almagest*, p. 89, under the name of Cassia cinnamomea; seu,

Cinnamomum sylvestre Barbadiensium, arbor baccifera, fructu calyculato 4 pyreno, folio enervi.

DALE (*Pharmacolog.* p. 296) very precisely indicates, that Cortex Winteranus is very scarce in the shops, and that the apothecaries supply the want of it with the bark of Canella alba.

* Several authors have formerly given this tree different names; as

Canella Cubane. *Jonsf. dendr.* 165.

Arbor Jucaia. *Nieremb.* 294.

Arbor cujus cortex gingiber æmulatur. *Laet.* 24.

Lignum seu potius cortex aromaticus. *Ejusd. in scholio ad Cap. de Lignis aromaticis.*

Monard. p. 324, &c.

Sir HANS SLOANE, we find, was convinced of the difference between them, as he gave separate descriptions of each, in the *Transactions* of the Royal Society. Notwithstanding this, he seems to be in some doubt (probably through want of systematic knowledge) if the difference might not depend upon the place of growth: at least, he says, the one may serve as a good succedaneum for the other; though he confesses that the true Winter's Bark is much the more aromatic of the two.

The *Canella alba* is to be found as well in the *Transactions*, No. 192, p. 462, as in the *History of Jamaica*, vol. ii. p. 87; where the author calls it

Arbor baccifera laurifolia aromatica, fructu viridi calyculato.

The botanical distinction was afterwards paid very little attention to by several writers on the *Materia Medica*; as Lemery, Pomet*, &c. And it is to be supposed that they have led Linnæus (not attending to the evidence of the old botanists) into this error of combining two different genera under the name of *Laurus Winterana* †: but he separated this species from *Laurus*, in the ensuing editions, as a distinct genus, and called it *Winterania*; under which name it has been universally but improperly known.

This mistake has however been fully developed by the late discovery of the *Cortex Winteranus* of Clusius and Sloane, a production of *Wintera aromatica* (from the neighbourhood of the antarctic regions), whose existence has remained in oblivion nearly a century, since it made its first appearance in the *Transactions* of the Royal Society, in the year 1692.

It is the late Dr. Fothergill who has, with the assistance of Dr.

* *Lemery, Diēt. des Drogues, p. 170.* *Pomet, Hist. des Drogues, p. 147.*

† *Spec. Plant. ed. 1, p. 371, n. 11.* *Hort. Cliff. 448.* *Mat. Med. 66.* 196.

Solander, handed down to posterity the real marks of that new genus, in vol. v. of *Med. Obs. and Inq.* p. 46 & seq.

As, however, even of late, * there has been a relation supposed between those two genera, the following description, taken from a number of perfect specimens, will remove all doubt of their being totally distinct.

Canella alba is a tree whose stem rises from 10 to 50 feet in height, very straight and upright, and branched only at the top. The bark is whitish, by which it is commonly known at first sight in the woods.

The branches are erect, and not spreading.

The leaves are petiolated, and grow in an alternate order, but not regularly. They are oblong, pointed at the end, entire in the margin, and without any distinct nerves or veins; of a dark green hue, a thick consistence, like those of laurel, and shining.

The flowers grow at the tops of the branches in clusters, but upon divided footstalks: they are small and seldom open, and of a violet colour.

The character of the flowers is as follows in botanical language, which is the most proper and expressive.

CAL. Perianthium monophyllum 3 lobum.

Lobi ad basin fere divisi, subrotundi, concavi, incumbentes, virides, glabri, membranacei, persistentes.

COR. Petala 5 calyce longiora, oblonga, sessilia, concava, erecta, duo paulo angustiora, consistentia, decidua.

Nectarium urceolatum, longitudine petalorum, antheriferum, deciduum.

STAM. *Filamenta* nulla.

* *Linn. Suppl.* p. 247.

Antheræ 21 lineares parallelæ, distinctæ, longitudinaliter
nectario extus adnatæ, univalves.

Pollen luteum.

PIST. *Germen* superum, intra nectarium, ovatum.

Stylus cylindricus, longitudine nectarii.

Stigmata duo, obtusa, convexa, rugosa.

PER. *Bacca* oblonga unilocularis 2—4 sperma.

Semina subrotundo-reniformia, nauco fragili nitenti tecta.

The distinguishing marks deduced from this character are,

Calyx trilobus.

Corolla pentapetala.

Antheræ 21, adnatæ nectario urceolato.

Bacca unilocularis, 2—4 sperma.

This genus, whose name is more properly changed to that of *Canella*, cannot be removed from dodecandria, where it has formerly been, notwithstanding its flowers bear some similarity to those of the sixteenth class. But on the same principle, *Melia*, *Trichilia*, *Samyda*, *Erythroxyton*, &c. should also change their place, which seems not very just, as they cannot be ranged among the *Columniferæ*, the natural tribe of that class.

There are various figures given of this plant by several authors; as by PLUKENET, in the *Phytogr.* tab. 160, f. 1; by SLOANE, in the *History of Jamaica*, vol. ii. tab. 191, f. 2, and in the *Philosophical Transact.* 1692, No. 192; by CATESBY, in his *History of Carolina*, vol. ii. p. 50, tab. 50; by Mrs. BLACKWELL, in her *Icon.* tab. 206; and, lastly, by BROWNE, in his *Natural History of Jamaica*, tab. 27, f. 2. The last is the only tolerable one among them all; but it seems so little understood by Browne himself, that he has referred *Breynia fruticosa*, fol. singularibus oblongo-ovatis superne nitidis, &c. *Hist. of Jam.* p. 246, n. 3, to this figure, evidently that of the *Canella alba*,

of whose parts of fructification he has annexed another drawing on the same plate (fig. 3), though less accurate and distinguishable.

The tree is pretty common in most parts of the West-India Islands, and is frequently found near the sea-coast, but then seldom exceeding 12 or 15 feet: in the inland woods it attains a more considerable height.

The whole tree is very aromatic, and when in blossom perfumes the whole neighbourhood. The flowers dried, and softened again in warm water, have a fragrant odour, nearly approaching to that of musk. The leaves have a strong smell of laurel. The berries, after having been some time green, turn blue, and become at last of a black glossy colour, and have a faint aromatic taste and smell. They are when ripe, as well as the fruit of several kinds of laurel, very agreeable to the *White-bellied and Bald-pate Pigeons* (*Columba Jamaicensis* & *leucocephala*), which feeding greedily upon them, acquire that peculiar flavour so much admired in the places where they are found.

This bark, together with the fruit of *Capficum*, were formerly common ingredients in the food and drink of the Caraihs, the ancient natives of the Antilles; and even at present it makes a necessary addition to the meagre pot of the Negroes.

It is not necessary to expatiate further upon the medicinal qualities of this bark, as it has been for ages in high repute, and occupies in the present Pharmacopœia the room of the old bark of Winter, which by the London Committee was thrown out of the New Materia Medica, as a drug not less rare than hitherto imperfectly known; and there is no doubt that *Canella alba* may with advantage be substituted in its room.

The annexed plate (*t.* 8) represents a branch of the tree in flower, and the berries of their natural size.

- a*, A flower, with its petals forcibly expanded.
- b*, The same magnified, so as to shew the infertion of the nectarium in the middle.
- c*, The nectarium magnified separately, with the *antheræ* longitudinally inferted.
- d*, The same cut through on one side, and extended, exhibiting twenty-one linear antheræ.
- e*, The pistillum standing on the three-lobed calyx magnified, with the two stigmata.
- f*, The bacca of its natural size, transversely cut, with one seed remaining fixed to the side.
- g*, The seeds of the natural size.